

WHAT IS CLAIMED IS:

1. A magneto-optical recording medium which allows a magnetic domain in a recording layer to be transferred, through enlargement, to a reproducing layer raised in temperature by irradiation of a laser beam, comprising:

5 a calibration area including a calibration magnetic domain recorded in a predetermined pattern in said recording layer.

2. A magneto-optical recording medium according to claim 1, wherein the calibration magnetic domain includes an isolated magnetic domain recorded at an interval not to detect at a same time the magnetic domain in plurality of number.

10 3. A magneto-optical recording medium according to claim 1, wherein the calibration magnetic domain includes an isolated magnetic domain recorded at an interval greater than a spot diameter of the laser beam.

15 4. A magneto-optical recording medium according to claim 3, wherein the isolated magnetic domain is a minimum magnetic domain recordable in said magneto-optical recording medium.

20 5. A reproducing apparatus for reproducing from a magneto-optical recording medium on which a laser beam is irradiated to transfer, through enlargement, a magnetic domain in a recording layer to a reproducing layer raised in temperature, wherein said magneto-optical recording medium has a calibration area including a calibration magnetic domain recorded in a predetermined pattern in said recording layer, comprising: an optical head for irradiating the laser beam to said magneto-optical recording medium and reproducing the calibration magnetic domain to output a reproduced signal; and an output adjusting means for causing said optical head to adjust an output of the laser beam in response to the reproduced signal.

25 6. A reproducing apparatus according to claim 5, wherein the calibration magnetic

domain of said magneto-optical recording medium includes an isolated magnetic domain recorded at an interval not to detect at a same time the magnetic domain in plurality of number by the laser beam.

7. A reproducing apparatus according to claim 6, wherein the isolated magnetic
5 domain is a minimum magnetic domain recordable on said magneto-optical recording medium.

8. A reproducing apparatus according to any of claims 5 to 7, wherein said
reproducing layer comprises a magnetic layer assuming a magnetic thin film with
perpendicular magnetization in a range of at least from a room temperature to a
10 reproducing temperature, further comprising a magnetic head for generating an
alternating magnetic field to enlarge a transferred calibration magnetic domain
transferred to said reproducing layer, wherein

said optical head has a laser device to output the laser beam, and outputs the
reproduced signal in level in response to an intensity of the laser beam;
15 said output adjusting means includes an intensity detecting means for detecting an
intensity of the reproduced signal, and a drive power control means for controlling drive
power to said laser device in response to the intensity.

9. A reproducing apparatus according to claim 8, wherein the reproduced signal
has peaks in number corresponding to the alternating magnetic field, the intensity
20 detecting means includes a number detecting means for detecting a number of peaks
contained in the reproduced signal, said drive power control means applying a driving
power at which the peaks become minimum in number to said laser device.

10. A reproducing apparatus according to any of claims 5 to 7, wherein said
reproducing layer is formed by a magnetic layer assuming as a magnetic thin film with a
25 planar magnetization at a normal temperature and a magnetic thin film with vertical

magnetization at a increased temperature, further comprising a magnetic head for generating an alternating magnetic field to enlarge a transferred calibration magnetic domain transferred to said reproduced layer, wherein

5 said optical head has a laser device to output the laser beam, and outputs the reproduced signal having a level in response to an intensity of the laser beam, said output adjusting means including an intensity detecting means for detecting an intensity of the reproduced signal, and a drive power control means for controlling a drive power to said laser device in response to the intensity.

10 11. A reproducing apparatus according to claim 10, wherein the reproduced signal has peaks in number corresponding to the alternating magnetic field, said intensity detecting means including a number detecting means for detecting a number of peaks contained in the reproduced signal, said drive power control means applying a drive power at which the peaks becomes minimum in number to said laser device.

15 12. A recording/reproducing apparatus for a magneto-optical recording medium including a recording layer and a reproducing layer, comprising:
a recording means for recording a calibration magnetic domain in a predetermined pattern in said recording layer by means of a magnetic head;

a transfer means for transferring the calibration magnetic domain to said reproducing layer by irradiating a laser beam;

20 a reproducing means for reproducing a transferred calibration magnetic domain transferred to said reproducing layer to output a reproduced signal; and

a laser output adjusting means for adjusting an output of the laser beam depending upon the reproduced signal.

25 13. A recording/reproducing apparatus according to claim 11, wherein said reproducing layer is formed by a magnetic layer assuming a magnetic thin film with

vertical magnetization in a range of from a room temperature to a reproducing temperature, said magnetic head generating an alternating magnetic field to enlarge the transferred calibration magnetic domain, further comprising an optical head including a laser device to output the laser beam, said optical head outputting the reproduced signal having an intensity in response to an output of the laser beam, and said output adjusting means including an intensity detecting means for detecting the intensity of the reproduced signal and a drive power control means for controlling a drive power to said laser device in response to the intensity.

14. A recording/reproducing apparatus according to claim 13, wherein the reproduced signal has peaks in number corresponding to the alternating magnetic field, said intensity detecting means including a number detecting means for detecting a number of peaks contained in said reproduced signal, and said drive power control means applying a drive power at which the peaks become minimum in number to said laser device.

15. A recording/reproducing apparatus according to claim 11, wherein the reproducing layer is formed by a magnetic layer assuming as a magnetic thin film with planar magnetization at a normal temperature and a magnetic thin film with vertical magnetization at a raised temperature, said magnetic head generating an alternating magnetic field to enlarge the transferred calibration magnetic domain, further comprising an optical head including a laser device to output a laser beam, said optical head outputting the reproduced signal having an intensity in response to an output of the laser beam, said output adjusting means including an intensity detecting means for detecting the intensity of the reproduced signal and a drive power control means for controlling a drive power to said laser device in response to the intensity.

16. A recording/reproducing apparatus according to claim 15, wherein the

reproduced signal has peaks in number corresponding to the alternating magnetic field, said intensity detecting means including a number detecting means for detecting a number of peaks contained in the reproduced signal, and said drive power control means applying a driving power at which the peaks become minimum in number to said laser device.

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